Toll Collection System Vendor RFP

1. Has WSDOT considered the benefit of allowing vendors to submit a combined Toll Collection System and Customer Service Center proposal?

Yes, WSDOT did examine various alternative approaches to procuring the needed Toll Collection Systems (TCS) and Customer Service Center (CSC) services and systems. Options included modifying existing toll systems and services contracts, combined TCS and CSC procurements, and separate procurements. WSDOT rejected modifying existing contracts because of the significant increase in scope of work for this project over the existing contracts and the requirement to have an open and competitive procurement process to provide these expanded services and systems.

Not all TCS suppliers offer a CSC solution which includes the performance based services required for this project, and not all CSC venders have a TCS solution. A combined approach could result in reducing the number of vendors who might be willing to bid on a combined solution. Alternately, teams could be formed that could result in higher overall costs due to increased management costs and the marking up of services provided by subcontractors to the prime vendor. Offering a combined proposal as an option would make it very difficult to fairly evaluate combined vs. non-combined proposals. In order to open the field to the widest swath of the industry, WSDOT decided to issue separate procurements for the TCS and CSC.

WSDOT's experience during the SR 167 High Occupancy Toll (HOT) Lanes Pilot Project successfully demonstrated that a TCS solution could be provided by one system supplier and the toll transactions could be correctly transmitted and processed by the existing Tacoma Narrows Bridge CSC vendor. By procuring the SR 167 HOT Lanes Project TCS as a separate procurement, WSDOT was able to obtain a competitive price as part of an open procurement process.

2. Has WSDOT evaluated the long-term benefit of requiring vendors to comply with dual standards such as ASTM for active tags (currently used for commercial vehicles) and ISO 18000 6C for passive tags ("Good to Go"), as opposed to the current protocol utilizing proprietary TransCore technology (ISO 18000 6B enhanced)?

Currently, the toll systems deployed by WSDOT support the dual tag Dedicated Short Range Communication (DSRC) protocols of American Society for Testing and Materials (ASTM) Version 6 and the proprietary TransCore technology (ISO 18000 6B enhanced). Backward compatibility with the existing population of more than 200,000 ISO 18000 6B enhanced (eGo) tags is critical. Also, as part of the initial and on-going assessment of tag technology, WSDOT has always anticipated migrating to the new national 5.9 GHz protocol as the standard was adopted and competitive products entered the market place.

Within this context, WSDOT will be issuing shortly a Request for Quotes in the near future for transponder technology that could accommodate an existing and potential alternative tag technology.

3. Has WSDOT considered the benefits of incorporating all civil infrastructure improvements associated with the tolling system into the scope of work for the TCS contract as opposed to self-performing this work?

Yes, we did consider that. Originally, WSDOT planned to include all work necessary for tolling implementation, including the civil infrastructure, into the TCS contract. Two factors influenced the decision to remove this work from the TCS scope:

- In order for the successful TCS vendor to incorporate this work, they would need to team with a local electrical contractor capable of performing the electrical and ITS improvements.
- 2) WSDOT has other civil improvement contracts active in the SR 520 corridor in very close proximity to the location determined best suitable for the roadside toll equipment necessary for tolling implementation.

WSDOT determined that it would be more cost effective to make use of an existing construction contract to install the civil infrastructure improvements necessary for tolling implementation. That contract includes ITS and electrical elements, creating an "economy of scale" benefit for WSDOT and will also allow the successful toll vendor to focus only on the infrastructure requirements at the toll location.

4. Has WSDOT performed an evaluation of technology to determine capabilities and limitations which will impact upon functional requirements (for example: 99.95% transponder accuracy and 90% optical character recognition accuracy)? If so does this evaluation reflect actual conditions (fogging, misting, possible interference from steel structure)?

In developing the requirements for the TCS, WSDOT looked to the experience of WSDOT and other toll agencies in achieving technical performance requirements to assess the practicality of proposed performance standards. In addition WSDOT reviewed various recent RFP's from across the country including, but not limited to, the Georgia State Road and Tollway Authority, North Carolina Turnpike Authority, Virginia Department of Transportation, San Diego Association of Governments, and Miami-Dade Expressway Authority. WSDOT's requirements are comparable with the requirements achieved at other agencies and reflected in these RFP's. Additionally, WSDOT's requirements are based on industry expertise within the project team and are reasonable and achievable with today's technology.

5. Has WSDOT evaluated the benefit of creating a simplified "two tiered" vehicle classification system as opposed to requiring multiple classifications for vehicles over two axles?

We haven't looked at this option, although it could make it somewhat easier or less expensive for the vendor to meet our classification requirements. Our approach has been to structure these procurements to be able to manage a wide range of vehicle classification and toll rate structures that the Transportation Commission may choose to implement; in this case by supporting vehicle classification based on axle quantity or vehicle shape. Since the Commission has established a system to charge different tolls based on the number of axles, and we expect they will choose to use consistent policies on toll roads in Washington, we feel it is reasonable and conservative not to preclude that toll policy through our procurement.

We understand from further discussion that the ERP team may be thinking of this proposal as an interim approach rather than a permanent one, allowing us to simplify our operations and contracts at the outset of tolling on SR 520 and to refine and fill out our business rules over time. However, for the TCS we still believe that full vehicle classification capability should be provided by the vendor to accommodate a range of potential toll strategies.

6. Has WSDOT evaluated the need for redundancy of OCR processing, requiring image capture and recognition at both the lane level and Customer Service Center level?

The current structure is deliberate to allow for a clean break of responsibilities between the two vendors, as well as specifically defined performance standards for both the TCS and CSC vendors. Some level of redundancy will be provided in that the CSC vendor will perform an image review of images unable to meet an optical character recognition (OCR) confidence level. In addition, we expect the CSC vendor to perform random spot checks of data provided by the TCS vendor's OCR system.

7. Has WSDOT developed a data interface control document that establishes the standard data transfer formats (file types, data layouts, encrypted, non-encrypted, etc) and exchange requirements (pushed and/or pulled, transmit times, error checking, guaranteed deliveries, etc) for all of the necessary data transfers between the TCS and CSC? If so this document should be provided in both RFPs.

An interface control document (ICD) was developed and is operational for electronic data exchange of transponder transactions and tag status information between the SR 167 HOT Lanes TCS and the existing Tacoma Narrows Bridge (TNB) CSC. This ICD will be the basis for the development of the interface from the existing and future WSDOT toll facilities to the new statewide CSC. Existing facilities include SR 167 HOT Lanes and Tacoma Narrows Bridge (TNB). This baseline ICD is included in both procurement documents.

Because the current interface does not support the transmission of video transactions, a new interface will need to be developed. As detailed in both RFPs, it is the responsibility of the CSC vendor to lead the development of the ICD in close cooperation with the existing and future TCS vendors and be responsible for interface performance.

8. Is it WSDOT's intention to perform system testing in a "real" traffic environment prior to moving into the revenue service phase? If so this should be made clear in the RFP.

Yes, it is WSDOT's intention to perform system testing in a live traffic environment prior to moving into the revenue service phase. Appendix 3, section 5.1.4 of the TCS procurement document describes the Operational Test with the following:

"The Operational Test shall be conducted under live operational conditions, including but not limited to actual traffic, maintenance calls, and system interfaces."

9. What is WSDOT's rationale for requiring a detailed "customized" software design for the TCS as opposed to a pre-packaged system configured to meet the RFP performance requirements?

WSDOT envisioned procuring a pre-packaged system that would be configured to meet the performance requirements. After reviewing the RFP design language in Appendix 3, it is apparent that we need to clarify our intent. WSDOT will conduct a more thorough review of the RFP language and develop the necessary changes, which will be issued in a future amendment.

10. How is the DVAS to be used in testing the TCS system? This should be prescribed in the RFP?

The RFP requires the development and WSDOT approval of a Master Test Plan that includes a definition of procedures for evaluating the System in a real-world environment as well as a definition of the procedures for the annual performance testing. The TCS vendor may choose to make use of the Digital Video Audit System (DVAS) for either or both of these testing requirements.

Customer Service Center Vendor RFP

1. Does WSDOT have data showing the relative distribution of TNB and SR 167 customers based on frequency of use (daily, weekly, bi-monthly, etc)? If so please provide. If not, it is suggested that WSDOT implement a video test program (i.e. "Video Shoot-Out") with the dual purpose of documenting accuracy of alternative camera technologies and establishing baseline "frequency of use" data.

We've attached our quarterly usage statistics from TransCore for SR 16. Those statistics focus on Good-To-Go! accounts, so additional information would be needed about cash customers if conversion to a cashless operation is considered in the future. We can extract more specific usage data for SR 16, but some lead time will be needed.

We have extensive usage statistics for the SR 167 HOT lane project. A majority of respondents pay to use the SR 167 HOT lane less than once a month. The frequency distribution differs for those who purchased their transponders before and after opening day of HOT lane operation (see Figure 1).

Figure 1: Crosstab of transponder purchase date and frequency of use

1	Before	After	Before	After
	Opening Day	Opening Day	Opening Day	Opening Day
More than 4 times per week	97	229	5%	24%
2 or 3 times per week	122	169	6%	18%
1 time per week	115	100	6%	11%
1 time every two weeks	129	105	7%	11%
1 time per month	200	106	10%	11%
Less than once a month	1286	228	66%	24%
TOTAL	1949	937	100%	100%

We also have limited information on usage data for SR 520 based on surveys conducted to supplement the outreach program on tolling conducted by the SR 520 Toll Implementation Committee. The survey conducted to support the Toll Implementation Committee report was a random telephone sample of 1,204 respondents, including 230 that had used the SR 520 Bridge in the previous week, and another 254 that had used both I-90 and SR 520 in the previous week.

Respondents replied to several questions about their travel patterns, including their frequency of use, time of day, trip purpose and mode. The frequency of use data from that survey are shown in Figure 2, and show that just under half of users sampled had used SR 520 on three days or more during the previous week. Note that a sample of peak period users would likely have a different distribution.

WSDOT will conduct further surveys in advance of toll implementation that will provide additional data to improve our market information.

Figure 2: Number of days within the previous week respondents drove their personal vehicle across SR 520

	Users who exclusively use SR 520		Users who use both SR 520 and I-90	
All seven days	7	3.0%	13	5.1%
6 of seven days	8	3.5%	9	3.5%
5 of seven days	48	20.9%	28	11.0%
4 of seven days	19	8.3%	31	12.2%
3 of seven days	26	11.3%	43	16.9%
2 of seven days	52	22.6%	50	19.7%
1 of seven day	70	30.4%	80	31.5%
TOTAL	230	100.0%	254	100.0%

2. Has WSDOT evaluated the benefit of eliminating or reducing the number of permanent customer store fronts in favor of kiosks (in partnership with retailers) and/or mobile customer service vans?

We have evaluated the option of no/fewer store fronts and having a mobile customer service van and/or kiosks. What we have asked for in the RFP is a combination of three walk-in customer service storefronts (one in Gig Harbor, and one on each side of Lake Washington) supplemented by a mobile customer service center. The purpose of having two storefronts in the SR 520 area is to give easy access to our unbanked customers on either side of the bridge, which have different travel sheds. The mobile unit(s) can go into the communities, handle events and conduct customer sign-ups on an as needed basis. This solution is our mitigation for Environmental Justice issues identified in the Environmental Assessment.

We do have some history on the benefits of having a CSC in the community. In our Gig Harbor storefront, we service more than 5,000 customers per month. Customers value that it is available to them in their area and use the service center to update account information and replenish their accounts. This storefront is a popular option for our customers who want personal contact with the entity entrusted with their money.

Initially we also offered a storefront CSC location in Tacoma. This was based on providing customers with an option to visit a CSC without crossing the bridge and needing to pay a toll to return to Tacoma. This storefront also provided closer access to individuals who would be signing up as part of the SR 167 HOT Lane Pilot project. While this location did service some customers, it did not handle enough business to justify keeping it open. As a result, this storefront was eliminated from the contract in the summer of 2008.

3. Has WSDOT considered the benefits of eliminating cash (legal tender) as a payment option at the service centers (this does not preclude having cash accounts)?

WSDOT has considered eliminating cash but as an Environmental Justice mitigation effort has determined to accept cash at the Customer Service Centers.

4. WSDOT's RFP relies heavily on transponder penetration as the primary metric for reducing the overall cost of transaction. Has WSDOT fully evaluated distribution and "frequency of use" considerations in making this decision?

WSDOT has made initial estimates of transponder use and numbers required that were published with the RFP to provide the same numbers to all potential vendors. WSDOT is updating estimates based on user data (see also CSC, question 1) and surveys and will publish new data when available. From experience at other facilities, video accounts/transactions have been shown to be more costly than transponder accounts due to increased processing and higher percentage of "uncollectible" transactions. WSDOT will require the selected vendor to offer a number of payment options to increase and maintain the number of prepaid transactions. Some of these are prepaid video accounts and prepaid individual or multiple transactions.

Over the next six months WSDOT will be collecting additional usage data to determine information such as: frequency of use by drivers; driving patterns; possible choices users may make when faced with a toll; demographics and psychographics of users; intent to establish accounts; understanding of the electronic tolling system; and messages that resonate with drivers. This information will be used to adjust our marketing plans. Our Urban Partnership agreement requires a robust before-and-after evaluation of tolling on SR 520, which we can leverage to provide market data to help improve our planning.

5. Has WSDOT evaluated the impact of future Transportation Commission price setting policy on customer account type (transponder, pre-paid license plate, post-paid license plate)?

WSDOT is confident that the requirements for flexibility in the Scope of Work and Business Rules (which include accommodations for transponder and pre-paid and post-paid license plate accounts) will result in a CSC system that will be able to comply with the policies of that Transportation Commission. The TCS vendor will supply transaction data such as vehicle classification, date and time, and the CSC vendor will apply the tolls and fees. WSDOT is beginning discussions with the Transportation Commission on the rate setting process. Please advise if there is a specific potential pricing policy that the panel feels may be of concern.

6. What rationale has WSDOT applied in requiring the CSC vendor – as opposed to the TCS vendor - to validate transaction transmission and OCR accuracy? In making this determination has WSDOT considered appropriate risk allocation strategies, including requiring the TCS vendor to provide images and data for each transaction to the CSC?

The TCS vendor will have their accuracy and performance measures to meet in terms of providing complete transaction data to the CSC. The CSC vendor needs to validate the transaction data for their own protection, as they are also held to performance and accuracy requirements for posting transactions and generating photo-enforced toll bills.

7. Has WSDOT evaluated the benefit of including license plate "fingerprinting" as a system feature to identify partially obstructed OCR images?

Although WSDOT is aware of "License Plate Fingerprinting" and its benefits, the OCR functionality specifications in the TCS RFP are performance based and do not specifically require "License Plate Fingerprinting." WSDOT's expectation is that each vendor's proposal will include a viable OCR solution that meets the performance requirements.

8. Has WSDOT developed Performance Measures & Liquidated Damages for the CSC vendor, similar to what has been developed/provided for the TCS vendor? If so these should be provided as part of the RFP.

Please see Amendment 1: Appendix 13 addresses Performance Measurers and Liquidated Damages.

9. How has WSDOT determined the number of transponders to be purchased?

WSDOT has estimated the number of required transponders by estimating the number of potential unique transponder account customers. The estimated number of accounts was extrapolated from the analysis of the frequency of SR 520 bridge use. The frequency of use information was gathered during SR 520 travel demand surveys. The average number of transponders historically associated with accounts was used to determine the number of transponders to be purchased.

This analysis will be updated based on the results of a scheduled user telephone survey and additional license plate surveys. This data collection effort will provide enhanced frequency of use information that will be used to refine the analysis. WSDOT plans to offer two types of transponders, a low cost sticker tag and a movable tag. The survey data will also help us understand how many of these types of transponders to purchase.

The initial estimate on the number of transponders was used as part of the fiscal note for the toll operations costs. One of the key drivers in this fiscal note was the need for appropriation authority from the Legislature. While we adjust transponder purchases to meet demand and maintain inventory, appropriation authority is needed to expend legislatively budgeted dollars.

Decisions on how many transponders to actually purchase shall be based on the results of the future analysis and in consultation with the new CSC vendor. WSDOT will adjust transponder purchases to meet demand and also keep enough inventories to fulfill new customers.

10. What pricing strategies has WSDOT evaluated for the various transaction and account types that will be permitted?

Prices for transactions and toll rates are set by the Transportation Commission. At Tacoma Narrows Bridge, the rate for electronic collection using transponders is discounted from the cash rate. For SR 167 the Commission set a range to use with dynamic pricing. SR 520 will use variable time-of-day pricing to help manage demand but revenue will also be important to support cash flow for the new bridge.

Video toll transactions are expected to be more expensive to process and may require either a higher toll rate or add-on fees to recover cost. Tolls not paid by transponder or video will be passed on to the courts for adjudication, which will also include higher fees. The specific fees and rates for all of these new types of toll transactions have not yet been determined. WSDOT is working to determine the best ranges of rates and fees for SR 520 opening, and will work with the Transportation Commission to set rates.

11. To what extent will license plate accounts and day passes be used to attract the infrequent customer?

License plate accounts will be available for customers that do not want a transponder.

Toll customers will also be allowed a choice whether to pay for passage through the internet, phone or speaking with a customer service representative prior to being sent a photo toll bill, or pay once they receive the bill. Those that do not pay by either means will receive a notice of infraction. The use of day passes (flat payment for unlimited use) could be considered during the finalization of business rules, but our current opinion is that the ability to establish short-term (non-billing) video toll accounts will provide similar functionality.

General comments on both RFPs

1. Is it possible to reduce some of the detailed documentation requirements of the RFP in favor of a performance based approach?

We believe the RFP scope of works provides the appropriate level of requirements. (See also our answer to question 9 under the TCS procurement section). WSDOT cares about performance, not about adherence to numerous detailed specs. We think the requirements for vendor system and process documentation are prudent and provide assurance to WSDOT that the Vendor will be able to meet the fiduciary and performance measures upon tolling commencement and beyond. These requirements will be incorporated into the contract which will ensure WSDOT can ensure the vendor is accountable for delivery of contract expectations.

2. Would it be possible to estimate a best and worst case operating cost analysis to be used in evaluating the proposals?

As a result of follow-up discussions we now understand that the intent behind this question was different than stated here. If we understand correctly, the intended question was unrelated to the procurements, and could have been stated closer to this: "Would it be possible to estimate a best and worst case operating cost analysis to inform legislators more fully about cost drivers and estimation risk." Please let us know if this is different from what you had in mind.

While the format for a fiscal note is constrained, it is certainly possible to provide additional information that helps to understand the factors that influence costs, which of those are fixed and variable, and what the risks are that could result in different costs. In fact, we hope that at the end of this study process we will have provided much of that background and understanding, and perhaps developed a format for explaining and tracking cost information to policymakers in the future.

3. Is it possible to reduce the time required for procurement to allow more time for the vendors to deliver?

We are continually evaluating our procurement schedule to identify potential areas we can trim. We believe that the time specified for proposal preparation and for proposal evaluation is aggressive and should not be reduced. However, the time specified for contract negotiation does provide some possibility for time savings, and if we can minimize negotiation time we will be able to leave more time for delivery.

4. There is no mention of a steering committee to guide the project and assist with business rule and legal framework development nor WSDOT administration of the contract. From whom in the Department does the vendor take direction?

When we met with the panel two weeks ago we briefly discussed the decision process for tolling in Washington. Decisions to authorize tolls rest with the state Legislature, and decisions about toll rates are the domain of the Transportation Commission. Within WSDOT, policy and management decisions that require elevation beyond the Tolling Division Executive are made by the Secretary in consultation with a standing committee of agency executives.

However, the contractor will take direction solely from the individual project managers. The WSDOT program manager (the Tolling Division Executive) is ultimately responsible for management of the overall program. We don't believe it's necessary or appropriate to discuss our internal decision-making processes in the procurement documents because, from the contractor's point of view, the only point of direction will be the individual project manager.

5. There is no language in the RFP supporting the development of a partnership between the WSDOT and the vendor.

We do envision a cooperative approach to the design process and resolving operating issues within the policy structure defined by WSDOT, the Transportation Commission and the Legislature. A collaborative process is envisioned that includes key WSDOT stakeholders and vendor representatives to manage design and operating processes.

While the TCS RFP main body does not specifically address this issue, language supporting the development of a partnership between WSDOT and the vendor can be found throughout appendix 3 to the TCS RFP on project delivery.

Specific examples are:

- Appendix 3, Section 2: "The Vendor shall maintain open and continuous communications with WSDOT, and the two parties shall continually look opportunities to improve efficiency while at the same time meeting the goals and requirements of this RFP."
- Appendix 3, Section 3: "WSDOT envisions a collaborative approach to the design process. The Vendor shall fully participate in this collaborative process by providing the creativity, industry knowledge, and professionalism needed to develop the System design. The Vendor shall recognize WSDOT's ownership of the completed System, and strive to foster cooperative design process whereby WSDOT's comments, concerns, and input are acknowledged and responded to in a mutually agreed fashion. WSDOT staff will be available to the Vendor to answer questions and provide clarification to WSDOT comments and concerns.

Similar language is included in the CSC RFP. Specific examples are:

- Appendix 2, Section 4: "The Vendor shall meet, in person, with WSDOT or its
 designee weekly during periods when Program is underway. These meetings will
 be held to discuss program progress, issues and planned activity for all Phases of
 program."
- Appendix 2, Section 7: "The Vendor shall fully participate in this collaborative process by providing the creativity, industry knowledge, and professionalism needed to integrate and implement the CSC. The Vendor shall recognize WSDOT's rights to, and the importance of, the implemented CSC and strive to foster a collaborative, cooperative process whereby WSDOT's comments, concerns, and input are acknowledged and responded to in a mutually agreeable and respectful manner.

6. Has WSDOT considered the fact that this system will only be in service for about five years before replacement? Are there simpler and more cost effective approaches that can be taken to put this interim system in place?

WSDOT has considered the fact the Toll Collection System being procured under this RFP will be in use only until traffic is moved to the newly constructed SR520 Bridge. One of the primary reasons WSDOT chose to install the new Toll Collection System on existing infrastructure was to save the cost of a new structure that would only be in use for a limited time.

Also, WSDOT has put in place contract provisions to allow, at WSDOT's discretion, WSDOT to contract with the successful vendor for installation of a tolling point on the newly constructed SR 520 corridor.

The statewide CSC system will be the repository for all toll transactions now and in the future. This system will not need replacement with the delivery of the new 520 Bridge.

7. Is it possible to modify business rules to simplify the electronic collections process? For example, what would be the net revenue effect of collecting the same fare for all vehicles, regardless of classification, using only license plate recognition rather than transponders?

We are open to and appreciate ideas about business rules that could simplify or reduce the cost of toll collection. As to the example, for now we believe we have made a good decision to use transponders for our most frequent users despite the rapid improvement in video tolling technologies and methods. We have an existing transponder-based toll system that our customer service center will continue to support, and we believe the pertransaction cost with transponders remains below the cost for video tolling.

Again, this is an area that we will revisit in the future as emerging video tolling systems are proven here and elsewhere, and once we have a better understanding of SR 520 usage patterns and impacts on net revenues of using video tolls exclusively.